

Internet Assigned Numbers Authority  
Monthly Report  
June 18, 2007

*For the Reporting period of  
May 1, 2007 – May 31, 2007*

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## **Executive Summary**

This monthly report provides statistical information of IANA operations as they relate to the IETF. Also included are the deliverables for this reporting period in accordance with the SLA signed between ICANN and the IETF effective 1 January 2007.

In a recent IETF-IANA committee telechat, it was suggested that IANA revise the report format to include an analysis of the data rather than the charts alone. For this month's report, IANA has include such an analysis for each queue and the charts have been moved to IANA's website.

## **Statistics**

As outlined in the IETF-IANA SLA, IANA is tasked with collecting and reporting on IETF-related statistics. The IETF-IANA group continues to work to come to an agreement regarding what the statistical output should look like. IANA will continue to provide the larger set of statistics using the agreed upon format. There continue to be some points below that are not fulfilled in this month's report due to complications with the way the requests are processed.

Below you will find the line item from the SLA of the statistics requested, a description of what queue's statistics are being provided to fulfill that deliverable and an analysis of the data for each queue. The actual charts representing the data can be found at <http://www.iana.org/reporting-and-stats/index.html>.

IANA continues to improve the way the tool processes the data to generate statistics. The data has become more accurate as almost all older tickets have been resolved. Current issues that remain are how the tool deals with merged tickets and queue changes. Some progress has been made with regards to how the tool will handle those situations but resolution of all these issues has not been reached. With input from those reviewing the report, we have also discovered that the numbers for tickets "created" each month are not accurate. The created number affects the first chart of each set titled "Requests created/closed/opened". The problem may be related to tickets getting created in the queue but at some time during the month they are moved to a different queue. However, we are looking into what is causing this error. IANA continues to determine the best way to handle this issue so that the statistics can be represented in the most accurate way possible.

For this month's statistics, the charts were generated using graphing tool as opposed to manually generated using Microsoft Excel. Full automation has not yet been reached however and IANA continues to work through the remaining challenges to fully automate the statistic reports and charts. IANA recognizes that the various formats of the graphs, which are generated by the tool, are not optimal. Improvement to the scale, colors, fonts and other visual features are being reviewed.

Types of charts for each queue found at <http://www.iana.org/reporting-and-stats/index.html>:

- Month to month comparison histogram of requests created/closed/open
- Month to month comparison histogram of age groups of closed tickets
- This month's absolute age of closed requests
- Month to month comparison histogram of age groups of open tickets
- This month's absolute age and current state of open requests
- Month to month comparison of mean, median and standard deviation for processing times of closed tickets

## **IESG approved documents (a)**

There are 2 processes that involve documents that have been approved for publication as an RFC where IANA has involvement. The first is when a document is approved by the IESG or the RFC-Editor indicates that they will be publishing the document. IANA reviews the document to determine what actions need to be performed if any. The second is when the RFC-Editor notifies IANA that an RFC-number has been assigned and IANA needs to update references in registries that were updated with new registries and/or assignments.

Requests in the “drafts-approval” queue begin at the time IANA receives a notification of an approval or intent to publish a document and end when the RFC-Editor has acknowledged receipt of the notification of completed actions by IANA. The requests in the “drafts-update-refs” queue begins at the time the RFC-Editor notifies IANA of the RFC number assigned to a document that had actions performed by IANA and ends with IANA updating all references to the document in IANA registries.

### **DRAFTS-APPROVAL QUEUE**

IANA completed a total of 32 requests for the month of May (11 of which were NO IC). A total of 23 requests were completed within the goal of 14 IANA days or less. Of the 9 remaining requests closed in May, 6 were closed with IANA days between 15-19. The remaining 3 were closed with IANA days of 26, 52 and 54. These numbers result in 70% of requests being processed within the proposed time goals.

For the requests taking between 15-19 days, slight improvements on processing times will move these requests into the goal range. For the 3 requests taking much longer, below you will find further analysis on reasons for the delay:

The request taking 26 IANA days entered the queue and should have immediately been put “On Hold” as it had to wait for another document to catch-up for IANA to complete the actions. Instead, the document was not put on hold until 19 days later. Had the document been put on hold upon receipt, the IANA days would have been lowered to 7 which is in the acceptable goal range. Improved careful review of the request when it enters the queue will help alleviate this issue.

The two requests taking 52 and 54 days were closely related. Both were older documents that were reviewed years ago and depended on each other. There were significant changes to the IANA considerations between the Evaluation and Approval. When IANA received the announcements of approval, further review was needed. IANA had to consult with the authors more than usual, as there were multiple new registries that needed creation. As time passes, we hope that these “older” documents that were originally reviewed years ago will appear less and less. However, another way to help with this issue is for IANA to push back more on the authors before the final approval. As IANA is more detailed in the Last Call and Evaluation reviews, the clearer the IANA Considerations sections are at the time of approval. This results in quicker processing times after approval.

In order to meet the deliverable for the sixth month report of processing 90% of requests for draft-approvals within the processing goal of 14 days, some adjustments to IANA’s workflow have been made. The result of the improvements may take some time to propagate, therefore the 90% goal for next month may not be fully reached. However, we should be very close to reaching this goal.

As of the last day of May, there were 7 requests open. Four of these requests had an IANA processing time still within the goal range of 14 days or fewer. Three of the requests had IANA processing times higher than the goal time. Detailed explanation of these tickets will be in the report where they were closed. One ticket had further clarification needed and IANA consulted with the internal expert reviewer. The other 2 were in the queue for long amount of time before the actions were implemented. The adjustments to IANA’s workflow as described above will help to resolve this issue.

#### DRAFTS-UPDATE-REFS QUEUE

Note: This type of request is not clearly identified in the SLA. Updating references would be most appropriately fit into the parameter requests not requiring technical review. A suggested goal for IANA completion time would be a maximum of 7 days.

IANA completed a total of 27 requests for the month of May. All but 1 request was completed within the 7 IANA day goal range. The one request completed within 14 IANA days was an unusual case where IANA needed to go back to the RFC-Editor to confirm what appeared in the registry and the information in the RFC were the same.

As of the end of the month, there was only 1 request that was open. This request already exceeds the 7 IANA day goal as additional consultation with IANA staff was needed as the updates involved making some changes to an RIR related registry.

#### **Review of documents on IESG telechat agendas (b)**

IANA reviews all documents that appear on the IESG telechats, which occur every other week. There are 2 ways the review of documents is tracked. The first is through IANA’s participation during the IESG Last Call of a document (the “drafts-lastcall” queue). The second is through the IESG Evaluation of documents (the “drafts-evaluation” queue).

Requests begin at the time IANA receives a notification of Last Call or Evaluation from the IESG and ends with IANA submitting official comments to the IESG. Below you will find the statistics for both the “drafts-lastcall” and “drafts-evaluation” queues.

#### DRAFTS-LASTCALL QUEUE

Note: For the drafts-lastcall queue there are no processing goals described in the SLA. Last Calls are sent to IANA with a due date. IANA’s goal is to submit official comments by that due date. Most Last Calls are either 2 to 4 weeks long. This would give the IANA a maximum of 28 days to complete a review and submit comments.

A total of 37 requests were completed for the month of May. Only 4 of the 36 requests were completed in the 15-30 day range. All others were completed within 14 days. As of the end of the month there were 11 open requests. All requests were still within the 28 maximum IANA day goal.

#### DRAFTS-EVALUATION QUEUE

Note: For the drafts-evaluation queue there are no processing goals described in the SLA. Evaluations are sent to IANA with no due date, however IANA’s goal is to submit the official comments before the document is discussed on the telechat. An evaluation announcement can arrive with only 1 day until the document appears on the IESG telechat as well as arrive before the Last Call comment period has ended.

A total of 32 requests were completed in the month of May. All but 4 requests were completed in 14 days or less. As of the last day of the month there were only 4 open requests, all which were open less than 14 days. It is difficult to determine whether IANA is meeting any specific goal as setting processing time goals for this queue is difficult. However, looking at an average processing time of 7 days, it appears that this queue is well managed.

#### **New Media (MIME) type requests (c)**

IANA receives requests for registration of new Media types. Also received, but rarely, are modification and deletion requests for Media types. All of these are processed in the “iana-mime” queue. These requests begin with the receipt of an application for (or modification/deletion of a Media type and end with the request being resolved with a successful registration, removal or modification. In some cases the requests are closed due to withdrawal of the request by the requester or via administrative closure, typically due to lack of response from the requester. We understand that MIME Media types are currently referred to as just “Media Types”. The queue “iana-mime” however, was named prior to this change.

## IANA-MIME QUEUE

Note: There is no information in the statistics on how many times any 1 request goes back to the expert. There is also no detail in the SLA regarding the expert's review time being "per review" or "per request". Continued analysis and review of the days in expert time is needed. If the results show that for the "review" it takes the expert on average longer than 14 days, the IESG may wish to review the expert support for this registry.

A total of 6 requests were closed in the month of May. The maximum time with IANA for any of these requests was 3 days. 100% of the closed requests have been completed with an IANA time as outlined in the processing goals of 14 days or less.

At the end of the month, there were a total of 17 open requests. All of these requests were either waiting on the expert or requester for response. The maximum number of days any of these requests had been in IANA time as of the end of the month was 1 day.

### **Modification to and/or deletions of Media (MIME) type requests (d)**

All media type requests are processed in the "iana-mime" queue. This queue includes a field to designate the request is for a new type or the modification or deletion of an existing type. These total statistics for the media type queue are found above in the "New Media type requests" section. In any given month there are little or no requests for deletion or modification of media types.

### **New Port number requests (e)**

IANA receives requests for assignment of new user port numbers. These requests are processed in the "iana-ports" queue. Port requests begin with the receipt of an application for a user port number and end with the request being resolved with a successful registration, withdrawn by the requester, or administratively closed.

## IANA-PORTS QUEUE

Note: Previously the "expert review" time was being counted as IANA time as the review was completed by IANA internal experts. Starting July 1, 2007, we will be reporting this as third-party (other) time, as IANA is requesting the IESG designate an official expert for this process.

There were a total of 27 requests closed in the month of May. Of those only 2 requests had IANA time over the 14-day goal. For one of these requests, the internal expert reviewer needed some extra time as the request was compared with an existing RFC for possible conflict. The other request had longer IANA time also due to some additional communications between IANA and the internal expert reviewer. More than 90% of requests completed this month were processed within the 14-day goal.

As of the end of the month there were 6 requests that remained open. Of these, 2 have been open considerably longer than normal. One request is unusual, as it is a reallocation of system ports. Advice from the IESG was sought and IANA is currently working with

an Area Director to determine if the request can be completed. The other request open for a large amount of time has been waiting on the requester for most of the life of the request and will most likely be closed due to unresponsiveness.

### **Modification to and/or deletions of Port number requests (f)**

#### PORT-MODIFICATION QUEUE

IANA receives requests for modification of existing port numbers. Also received, but are rare, are deletion requests. Both of these are processed in the “port-modifications” queue. These requests begin with the receipt of a modification (or deletion) request and end with the request being resolved with a successful modification (or removal) or closed due to withdrawal or administrative closure.

During this reporting period, there were a total of 4 closed requests. 100% of those closed were done so within the goal processing time of 7 days or less. Of the 2 open requests at the end of the month, there is one that has been open a total of 17 days. 16 days of that request is with the requester. IANA will continue to ping the requester until the 60-day limit is reached. Overall, this queue is in good standing and there are no problems encountered at this time.

### **New Private Enterprise Number (PEN) requests (g)**

All PEN (Private Enterprise Numbers) type requests are processed in an automated program that does not go through IANA’s ticketing system. The tool includes new, modification and deletion requests. The tool does not yet produce statistics similar to what is available for the other protocol parameter queues. Raw data shows that 261 new PENs were assigned in May 2007.

### **Modification to and/or deletions of PEN requests (h)**

Modifications and/or deletions of PENs occur in a separate tool in which the statistics production is not yet available. More information can be found above in the “New Private Enterprise Number (PEN) requests” section. Raw data shows that 19 existing PENs were modified in May 2007.

### **Requests for the creation and/or deletion of registries (i)**

IANA receives requests for the creation of registries through documents that will be published as RFCs. There is no separate queue for tracking the creation of registries, separately from actions that are approved via RFC publication. For more information, please see the above section “IESG approved documents”. Further discussion is needed to determine if different statistics need to be produced for registry creation/deletion.

## **Requests relating to other IETF-created registries for which the request rate is more than five per month (j)**

For those registries where there are more than 5 requests per month, IANA creates a separate queue for tracking those tickets. Currently there is two request types where IANA has created separate queues: TRIP ITAD Numbers and Multicast addresses.

IANA has been watching the rate at which language subtag and character set requests are received in the prot-param queue. They have not reached the consecutive volume of 5 per month, however we will continue to watch for any increase in activity for those parameters.

Although not requested by the SLA, also included in this report are the statistics on the general protocol parameter queue. This queue contains all other requests for assignments and registrations in the other IANA maintained protocol parameter registries.

### IANA-TRIP QUEUE

There were a total of 27 IANA-TRIP requests closed in the month of May. 100% of the closed requests had an IANA time of 7 days or less. Four closed requests had a total processing time larger than 7 days. All of those with larger times were due to non-responsiveness from the requester.

Of the 9 requests that remain open, 8 are waiting on the requester to respond and have been for the life of the requests. Six of these will most likely close due to unresponsiveness. There is 1 request that is being delayed due to internal processes.

### IANA-MULTICAST QUEUE

The IANA-MULTICAST queue began this month with no requests open. One ticket was received and remains open at the end of the month. This ticket is currently waiting on the requester and the majority of the time of the life of the request is with the requester. Based on the only request in this queue, IANA has met the processing goals, as the IANA time for this request is only 4 days.

### IANA-PROT-PARAM QUEUE

Note: The IANA-PROT-PARAM queue is for all the miscellaneous requests that are not processed in a separate queue due to the lack of volume for any one type of request. These requests can be first-come first-served, expert review, IESG approval or another review method. In the SLA, processing goals are determined on the type of request. However, for this queue there is no separation of request type.

There were a total of 10 requests closed during the month of May. Of those, 9 were processed within the IANA 7 days or less. One request was processed within 9 days. This particular request was not standard as it was an archive of a parameter. IANA had

to create a new registry for these archived registrations as none existed. Consultation was needed, therefore the request took a few days longer to complete.

There are 18 requests that were open as of the end of the month. All but 3 requests were waiting on IANA. Of the 18 requests, the maximum IANA time on any one request at the end of the month was only 1 day. All other time spent in the queue is with the requester, expert or other party. In summary, the IANA time for general protocol parameter requests are within the established goals for each of the request types.

## Methodology

The statistics presented here and on the website were gathered by extracting data from the IANA ticketing system queues into daily logs for each queue that are then concatenated into monthly logs for each queue

The logs were processed by a PERL script to extract the transaction history of each ticket in each queue, from the date the ticket was opened until the date the ticket was closed, or the end of the monthly log for tickets not yet closed.

The number of open tickets, closed tickets, the amount of time spent in each of IANA, Other, and Requestor related states (for which transaction data is available), and the total elapsed time from ticket open to close (or the end of the present reporting period), as well as the minimum processing time, maximum processing time, mean processing time, median processing, and standard deviation from the mean processing time will be presented.

The format of the snapshot files used to maintain state (transaction state and prior partial totals) across monthly report processing has not yet been documented.

## Definitions

Below are tables containing the definitions for the queues in which IANA tracks IETF-related requests.

### Definitions for the drafts-lastcall, drafts-eval, drafts-approved and drafts-update-refs queues

RT STATUS	DESCRIPTION
Created	A request is created when IANA receives either a notification from the IETF Secretariat that a document has been approved by the IESG for publication as an RFC OR when the RFC-Editor notifies IANA that they intend to publish a document as an RFC.
Resolved	A request is resolved when the RFC-Editor confirms that they have received IANA's notification of completed actions OR when IANA confirms that there are no IANA Considerations.
Rejected	(not used in this queue)
Processing Time	The number of calendar days between the date the ticket was Created

	and Resolved. If a ticket is not yet resolved, Processing Time is the number of workdays between the date the ticket was created and the last date of this reporting period (04-30-2007).
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### Definitions for the iana-ports, port-modifications, iana-multicast, iana-trip, iana-mime and iana-prot-param queues

RT STATUS	DESCRIPTION
Created	A request is created when the user has submitted a template or a web form.
Resolved	A request is resolved when the ticket is closed either because the requested resource has been assigned, the resource registration has been modified or deleted as requested or the ticket has either been administratively closed or withdrawn by the requester.
Rejected	The request was inappropriate or could not be met for policy reasons.
Processing Time	The number of calendar days between the date the ticket was Created and Resolved. If a ticket is not yet resolved, Processing Time is the number of workdays between the date the ticket was created and the last date of this reporting period (04-30-2007).

### Clock definitions

CLOCK	DESCRIPTION
IANA	This includes the time the IANA is working on the request
3 <sup>rd</sup> Party	This includes time spent with the designated expert, IESG, Authors, Working Group Chairs, RFC-Editor or other outside party
Requester*	This includes the time the request is with the requester
Zombie	This state appears if the ticket was created prior to January 1, 2007 and no state was known or given. Those with this state will not exist as soon as all tickets created before Jan 1 are resolved.

### Deliverables

In accordance with the SLA, the IANA is reporting on the following deliverables due within five (5) months of implementation of this agreement:

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\* For the case of drafts-lastcall, drafts-eval, drafts-approval and drafts-update-refs queues, the requestor is either the IESG or the RFC-Editor so there is no “requestor time”.

- 1) Provide publicly accessible, clear and accurate periodic statistics (continual)
- 2) Track and publicly report on a monthly basis (monthly report - continual)
- 3) Single points of failure documentation to IETF-IANA Working Group (continual)

### ***Provide publicly accessible, clear and accurate periodic statistics***

See “Statistics” section of this report and also <http://www.iana.org/reporting-and-stats/index.html>.

### ***Track and publicly report on a monthly basis (monthly report)***

The SLA describes 3 items IANA will provide monthly reports. These items are outlined below along with a description of actions taken for each.

- a. Resource allocation statistics as described in SLA item 20

In item 20 of the SLA, there is a detailed list of statistics to be produced for the monthly report. The agreed upon partial statistics are found in the “Statistics” section of this report.

- b. The utilization of all identified finite resources defined within ICANN/IANA registries

The IANA is undertaking a project to review all registries to identify those that are finite and additionally those that are in danger of being exhausted. As of the end of this reporting period, no registries have been identified as being in danger of exhaustion. IANA will continue to report findings in future monthly reports.

- c. Efforts that have addressed single points of failure/expertise (see item 3 in the SLA)

### ***Single points of failure documentation to IETF-IANA Working Group (continual)***

In conjunction with the monthly report, the IANA submits a separate document to the IETF-IANA Group documenting what steps have taken place to examine all known single-points of failure related to the IETF work. For those known single-points of failure, IANA will describe what actions were taken to correct where the point existed or what plan has been put in place for future resolution. During this reporting period, no single-point of failure was identified.

## **Conclusions**

For the statistics, discussions within the IETF-IANA group have continued regarding future presentation of graphs. After the group comes to consensus regarding what statistics should be presented monthly, the SLA will need revising.

As can be seen by the provided information in this report, IANA is on its way to meeting the processing time goals set for sixth month report. IANA has completed the deliverables outlined in the SLA for the fifth month, aside from the statistics, which require further consultation with the IETF-IANA committee. IANA will continue to report on the outstanding deliverables in the monthly reports.